STATION 102.

Density at 60° F .:-

Surfac	е		1.02589	300 fathoms,		. 1.02609
50 fathoms,			1.02661	400 "		. 1.02633
100	"		1.02645	Bottom,	•	1.02595
200			1.02619			

Depth, 2450 fathoms; deposit, Globigerina Ooze, containing 66.27 per cent. of carbonate of lime (see Murray and Renard, Deep-Sea Deposits Chall. Exp.).

At 6.15 a.m. stopped to sound, and sounded in 2450 fathoms. At 9 a.m. obtained serial temperatures down to 1500 fathoms. Obtained samples of water from various depths for analysis. The carbonic acid was determined in water from 300 fathoms, and amounted to 53.6 milligrammes per litre. At 11.30 a.m. completed temperatures, and at 11.55 a.m. made all plain sail. Some terms were observed about the ship at night.

St. Paul's Rocks distant at noon, 884 miles. Made good 99 miles. Amount of current 9 miles, direction S. 72° W.

ORGANISMS FROM THE SURFACE.

Surface Organisms.—Since passing out of the Guinea Current, *Pyrocystis* was not so abundant, and the phosphorescence was less marked.

Willemoes-Suhm writes: "A shark was caught this morning, in the valvular intestine of which an *Anthobothrium*, and in the duodenum a *Tetrarhynchus* with very big head, were found in abundance. On its skin *Caligus* (perhaps two species) was found."

Station 103 (Sounding 174), St. Vincent to St. Paul's Rocks (see Chart 12 and Diagram 4).

August 22, 1873; lat. 2° 52' N., long. 17° 0' W.

Temperature of air at noon, 77°8; mean for the day, 76°0.

Temperature of water :-

Surface, .				77·0	90 fathoms,			57.9
20 fathoms,				76.5	100 ,,			56.4
30	"	*		74.7	150 "			51.5
40	"			70.5	200 "			47.5
50	11	 		63.8	300 ,,			43.0
60	"	•	•	$62 \cdot 2$	400 ,,			40.6
70	"	•0		60.8	500 ,,	•2		40.2
80	11	•	•	59.4	Bottom,		•	36.0

Density at 60° F. at surface, 1.02622.

Depth, 2475 fathoms; deposit, Globigerina Ooze.